Internal Application No PCT/US2004/019489

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 · C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

#### **B. FIELDS SEARCHED**

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{C12Q} \end{array}$ 

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBL, WPI Data, Sequence Search, BIOSIS

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/18050 A (HOON MARK; MUELLER KEN (US); RYBA NICK (US); US HEALTH (US); UNIV CAL) 15 March 2001 (2001-03-15)	1,17,18
Y A	*Sequences 1 and 2, Sequences19, 20* & LIPSHUTZ R J ET AL: "High density synthetic oligonucleotide arrays" NATURE GENETICS, NEW YORK, NY, US, vol. 21, January 1999 (1999-01), pages 20-24, XP002182912 ISSN: 1061-4036	2-5,8-49 2
X	DATABASE DBSNP 19 July 2001 (2001-07-19), GENAISSANCE: "ss3181754" XP002302158 retrieved from NCNI	6,7,19, 20,23
Y	Database accession no. RS2234233 the whole document -/	8-49

Total of documents are listed in the continuation of box C.	Y Patent family members are listed in annex.		
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> <li>Date of the actual completion of the international search</li> </ul>	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "8" document member of the same patent family		
25 February 2005	Date of mailing of the international search report  2 1. 03, 2005		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  Cornelis, K		
FORM DCT/ICA MAD /			

Form PCT/ISA/210 (second sheet) (January 2004)

national application No. PCT/US2004/019489

Box II Observations where certain claims were found an acceptable (Centingstion of the
Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.:     because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  .
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-49 with respect to inventions 1,8,11,16,17 and 21
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 8, 9, 15 (completely) and 6,7, 10-14,16,18-33,37,38,45-49 (partially)

a collection of T2R variant nucleic acids, comprising at least 2 T2R1 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R1 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

2. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R3 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R3 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R3 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

3. claims: 8, 9, 15 (completely) and 6,7, 10-14,16,18-33,37,38,45-49 (partially)

a collection of T2R variant nucleic acids, comprising at least 2 T2R4 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R4 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

4. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R5 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R5 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R5 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

5. claims: 8, 9, 15 (completely) and 6,7, 10-14,16,18-33,37,38,45-49 (partially)

a collection of T2R variant nucleic acids, comprising at least 2 T2R7 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R7 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

6. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R8 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R8 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R8 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

7. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R9 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R9 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R9 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

8. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R10 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R10 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R10 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

9. claims: 8, 9, 15 (completely) and 6,7, 10-14,16,18-33,37,38,45-49 (partially)

a collection of T2R variant nucleic acids, comprising at least 2 T2R13 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R13 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

10. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R14 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R14 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R14 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

11. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R16 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R16 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R16 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

12. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R38 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R38 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R38 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

13. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R39 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R39 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R39 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

14. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R40 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R40 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R40 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

15. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R41 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R41 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R41 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

16. claims: 4-5 (completely) and 1-3, 17, 18, 34-36, 39-44,47-49 (partially)

A T2R43 variant specific nucleic acid molecule comprising at least one SNP, an array comprising at least 2 such molecules, an isolated polypeptide fragment comprising an amino acid change as in Figure 1, and a method to screen for compounds useful for modulating bitter taste.

17. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49

#### (partially)

A T2R44 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R44 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R44 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

18. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R46 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R46 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R46 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

19. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R47 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R47 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R47 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

20. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R48 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R48 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R48 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

21. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R49 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R49 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R49 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

22. claims: 8, 9, 15 (completely) and 6,7, 10-14,16,18-33,37,38,45-49 (partially)

a collection of T2R variant nucleic acids, comprising at least 2 T2R50 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R50 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

23. claims: 4-5, 8, 9, 15 (completely) and 1-3, 6, 7, 10-14, 16-49 (partially)

A T2R60 variant specific nucleic acid molecule comprising at least one SNP, a collection of T2R variant nucleic acids, comprising at least 2 T2R60 variant specific nucleic acid molecules which comprise at least one SNP listed in Table 7, an array comprising said collection, an isolated polypeptide fragment comprising an amino acid change as in Figure 1 or Table 7, an isolated nucleic acid molecule, a kit comprising a T2R60 isoform specific antibody, and a method to screen for compounds useful for modulating bitter taste.

Inter nal Application No PCT/US2004/019489

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT  Category Citation of document with indication where				
	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
ŀ	& DATABASE DBSNP			
	2 January 2001 (2001-01-02)			
	13C-C3HL: "submitted SNP defaile"	1		
Í	retrieved from NCBI	1		
i	Database accession no. 552718532	1		
ļ	the whole document			
<b>(</b>	DATABASE DBSNP			
	2 January 2001 (2001-01-02)	6,7		
+	15C-C5HL: "ss2718533"			
	XP002302159			
	retrieved from NCBI			
,	Database accession no. RS41469			
	the whole document	8-33,37,		
		38,45-49		
,	KIM UN-KYUNG ET AL. BREEZE	00,75-49		
ļ	KIM UN-KYUNG ET AL: "Positional cloning	8-16,		
	of the human quantitative trait locus underlying taste sensitivity to	26-49		
	phenylthiocarbamide."			
	SCIENCE. 21 FEB 2003	1		
	VOI. 299, no. 5610			
	21 February 2003 (2003-02-21) name			
	1221 1223, APVUZ3U1614			
	ISSN: 1095-9203			
	cited in the application			
- 1	the whole document			
	WO 01/77676 A (SENOMYX INC)			
	18 October 2001 (2001-10-18)	1,17,18,		
	the whole document	34		
	On the day day	26-49		
	DATABASE DBSNP 27 July 2000 (2000-07-27),	6 7		
	1613M ID: 1559/468"	6,7		
1	XP002317831	1,71,0		
	retrieved from NCBI	1. <b>-1</b> .		
	Database accession no. RS597468 cited in the application	4		
1	abstract			
	*	2-5		
	DATABASE Geneseq 'Online!			
	18 JULY 2001 (2001–07–18) "Human account to	1,20,23		
	E. 22211 CHOOMING ORNE & CHANG CLAND	1		
	HBBBC71, SEQ ID NO:18." XP002317832			
	retrieved from tot			
	retrieved from EBI accession no. GSN:AAD05499			
1	Database accession no. AAD05499			
1	the whole document			
		26-49		
	-/			
	/ -			
100		1 2/		
		V 7		
CT//SAP10/	ontinuation of second sheet) (January 2004)			

Intermal Application No PCT/US2004/019489

ation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/US2004/019489	
Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
DATABASE DBSNP C/G SNP at AA 101 of T2R16 25 September 2001 (2001-09-25), "rs2692396" XP002317833 retrieved from NCBI Database accession no. RS2692396 cited in the application abstract	1,6,7	
DATABASE DBSNP 19 July 2001 (2001-07-19), "rs2233988" XP002317834 retrieved from NCBI Database accession no. RS2233988	1,6,7,23	
abstract	2-5	
DATABASE DBSNP 19 July 2001 (2001-07-19), XP002317835 retrieved from NCBI Database accession no. RS2233989 cited in the application abstract	6,7	
DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317836 retrieved from NCBI Database accession no. RS846664 cited in the application abstract	6,7	
DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317837 retrieved from NCBI Database accession no. RS860170 cited in the application abstract	6,7	
DATABASE DBSNP 5 October 2000 (2000-10-05), XP002317838 retrieved from NCBI Database accession no. RS1204014 cited in the application abstract	6,7	
-/		
	DATABASE DBSNP C/G SNP at AA 101 of T2R16 25 September 2001 (2001-09-25), "rs2692396" XP002317833 retrieved from NCBI Database accession no. RS2692396 cited in the application abstract  DATABASE DBSNP 19 July 2001 (2001-07-19), "rs2233988" XP002317834 retrieved from NCBI Database accession no. RS2233988 cited in the application abstract  DATABASE DBSNP 19 July 2001 (2001-07-19), XP002317835 retrieved from NCBI Database accession no. RS2233989 cited in the application abstract  DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317836 retrieved from NCBI Database accession no. RS846664 cited in the application abstract  DATABASE DBSNP 2 September 2000 (2000-09-02), XP002317837 retrieved from NCBI Database accession no. RS860170 cited in the application abstract  DATABASE DBSNP 5 October 2000 (2000-10-05), XP002317838 retrieved from NCBI Database accession no. RS1204014 cited in the application abstract	

Internal Application No PCT/US2004/019489

ategory °	Citation of document, with indication, where appropriate of the	
	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
<b>X</b>	BERND BUFE: "Dissertation zur Erlangung des Doktorgrades an der Universität Potsdam: Identifizierung und Charakterisierung von Bitterezeptoren" 'Online! May 2003 (2003-05), , POTSDAM , XP002318541 Retrieved from the Internet: URL:http://pub.ub.uni-potsdam.de/2004/0013 /bufe.pdf>	1,6,7, 23-25
Y	'retrieved on 2005-02-17! page 61 - page 64	26-49
x	BUFE BERND ET AL: "The human TAS2R16 receptor mediates bitter taste in response to beta-glucopyranosides" NATURE GENETICS, vol. 32, no. 3, November 2002 (2002-11), pages 397-401, XP002318540 ISSN: 1061-4036 the whole document	1,6,7
X	DATABASE EMBL 'Online! 29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R44 gene, complete cds." XP002318542 retrieved from EBI accession no. EM_PRO:AF494228 Database accession no. AF494228 abstract	1
X	DATABASE EMBL 'Online! 29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R43 gene, complete cds." XP002318543 retrieved from EBI accession no. EM_PRO:AF494237 Database accession no. AF494237 abstract	
X	DATABASE EMBL 'Online!  29 April 2002 (2002-04-29), "Homo sapiens candidate taste receptor TAS2R49 gene, complete cds."  XP002318544  retrieved from EBI accession no.  EM_PRO:AF494236  Database accession no. AF494236  abstract  -/	1

Interporal Application No
PCT/US2004/019489

Category °	Citation of document with indicati	
	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/006482 A (SENOMYX, INC; PRONIN, ALEXEY; CONNOR, JUDY; TANG, HUIXIAN; KEUNG, WALT) 23 January 2003 (2003-01-23) *seq id 9*	1,17,18,
A	SHI PENG ET AL: "Adaptive diversification of bitter taste receptor genes in Mammalian evolution."  MOLECULAR BIOLOGY AND EVOLUTION. MAY 2003, vol. 20, no. 5, May 2003 (2003-05), pages 805-814, XP002302157 ISSN: 0737-4038 cited in the application table 1	1-49
A	UEDA T ET AL: "Identification of coding single-nucleotide polymorphisms in human taste receptor genes involving bitter tasting." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS. 6 JUL 2001, vol. 285, no. 1, 6 July 2001 (2001-07-06), pages 147-151, XP002301613 ISSN: 0006-291X the whole document	1-49
A	WO 03/008627 A (DRAYNA DENNIS; US GOVERNMENT (US); KIM UN-KYUNG (US); LEPPERT MARK (U) 30 January 2003 (2003-01-30) the whole document	6-49
P, X	WO 2004/029087 A (MEYERHOF WOLFGANG; BUFE BERND (DE); HOFMANN THOMAS (DE); KUHN CHRISTI) 8 April 2004 (2004-04-08) the whole document	1-49

Information on patent family members

PCT/US2004/019489

Patent document Publication		PCT/US2004/019489			
cited in search report		Publication date		Patent family member(s)	Publication date
WO 0118050	A	15-03-2001	US US AU CA CN EP JP NO WO US US	2002051997 A1 2003022278 A1 773600 B2 7366400 A 2384777 A1 1387536 T 1214343 A2 2003510037 T 20021164 A 0118050 A2 2004038312 A1 2003157568 A1	02-05-2002 30-01-2003 27-05-2004 10-04-2001 15-03-2001 25-12-2002 19-06-2002 18-03-2003 10-05-2002 15-03-2001 26-02-2004 21-08-2003
WO 0177676	A	18-10-2001	AU CA CN DE EP JP NO WO US	5125801 A 2403003 A1 1434921 T 01924619 T1 1292827 A1 2003530098 T 20024809 A 0177676 A1 2004209313 A1 2002094551 A1	23-10-2001 18-10-2001 06-08-2003 15-04-2004 19-03-2003 14-10-2003 09-12-2002 18-10-2001 21-10-2004 18-07-2002
W0 03006482	A	23-01-2003	CA EP WO US	2452337 A1 1502112 A2 03006482 A2 2003170608 A1	23-01-2003 02-02-2005 23-01-2003 11-09-2003
W0 03008627	Α	30-01-2003	CA WO US	2454566 A1 03008627 A2 2004248123 A1	30-01-2003 30-01-2003 09-12-2004
WO 2004029087	Α	08-04-2004	WO	2004029087 A2	